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EXAMINER
FLETCHER III, WILLIAM P

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/762,155  
Filing Date: January 21, 2004  
Appellant(s): COMBES ET AL.

**MAILED**  
**AUG 08 2007**  
**GROUP 1700**

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Judith L. Byorick  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed April 23, 2007, appealing from the Office action mailed August 23, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

At page 8 of the Brief, Appellant has additionally identified claim 17 under sub-ground of rejection A(1) because Appellant intends to argue this claim separately in the Arguments section. Claim 17 is clearly identified as being rejected, along with claims 1-3, 6-9, 16, and 22-29, under 35 USC 103(a) as being unpatentable over Peeters et al. (US 6,328,409) in view of JP 03-100561. Claim 17 is separately argued under the appropriate sub-heading in the Arguments section.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 6,328,409 B1	Peeters et al.	12-2001
US 6,5403,693 A	Patel et al.	4-1995
US 5,348,832 A	Sacripante et al.	9-1994
JP 03-100561 A	Watanuki et al.	4-1991

USPTO Translation of JP 03-100561 A, August 2001.

Definitions of "high polymer" and "degree of polymerization" found in Alger, Mark, ed., Polymer Science Dictionary, 2nd Edition, Copyright 1989 Chapman & Hall, 1997 Mark Alger.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

Claims 1-3, 6-9, 16, 17, and 22-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Peeters et al. (US 6,328,409 B1) in view of JP 03-100561. Both of these references were cited in the IDS filed 01/21/2004, including an English-language translation of the JP document. With respect to claim 17, the definitions of "high polymer" and "degree of polymerization" from Alger's *Polymer Science Dictionary* were cited in the Final Office action solely as evidence of the fact that the high polymer polypyrrole disclosed by the JP reference is a polymer having about 100 repeat monomer units.

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Peeters teaches all of the ballistic aerosol process limitation recited in these claims [abstract and 2:44-3:20].

While Peeters teaches some of the specific physical properties of the marking material including particle size, etc. [13:14-15:24] and while the reference teaches that the marking material may be a toner [3:28-33], this reference is silent with respect to the particular toner composition and, consequently, does not teach the particular toner composition recited in these claims. Because this reference is silent with respect to the toner composition, one of ordinary skill would have looked to the prior art to find a suitable toner composition.

As detailed at length in the record of parent 10/350,534 (incorporated by reference herein), JP '561 teaches Appellant's claimed toner.

It would have been obvious to one of ordinary skill in the art to modify the process of Peeters so as to apply, as the toner marking material, the toner of JP '561. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully applying the toner marking material.

With respect to properties of the toner such as diameter, size distribution, concentration, and bulk conductivity, it is the examiner's position that these are all result-effective variables effecting the fluid and coating characteristics of the toner composition and may all be readily adjusted by the skilled artisan. Consequently, absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed diameter, size distribution, concentration, and bulk conductivity, it would

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have been obvious to one of ordinary skill in the art to optimize these result-effective variables by routine experimentation.

With specific respect to claim 17, in response to Appellant's argument that the high polymer polypyrrole of the JP reference is not a polypyrrole having at least about 6 repeat monomer units to at least about 100 repeat monomer units, the Examiner cited the definition of "high polymer" from Alger's *Polymer Science Dictionary*. Alger defines "high polymer" as:

A polymer having a high degree of polymerization (DP) and hence of a high molecular mass. "High" is often interpreted as meaning sufficiently high DP so that the effects of end groups may be ignored. ...Typically this means a polymer with a DP of more than about 100.

Alger defines "degree of polymerization" as:

The number of repeat units (M) in an individual polymer molecule, i.e., the value of  $n$  in the generalized formula of a polymer molecule  $[M]_n$ .

Hence, the ordinary and conventional meaning of the term "high polymer" is inclusive of polymers having "about 100 monomer units." In the case where a claimed range overlaps or lies inside a range disclosed by the prior art, a *prima facie* case of obviousness exists. Similarly, a *prima facie* case of obviousness exists where the claimed range and prior art range do not overlap but are close enough that one skilled in the art would have expected them to have the same properties.<sup>1</sup>

Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peeters et al. and JP '561, as applied to claim 1 above, and further in view of Patel et al. (US 5,403,693 A).

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<sup>1</sup> MPEP 2144.05

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The teaching of Peeters and JP '561 is detailed above.

Neither of these references teach the particular emulsion aggregation process recited in these claims.

As detailed at length in the record of parent 10/350,534 (incorporated by reference herein), Patel teaches applicant's claimed emulsion aggregation process.

It would have been obvious to one of ordinary skill in the art to modify the process of Peeters in view of JP '561 so as to prepare the toner marking material according to the emulsion aggregation process of Patel. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully providing the toner marking material.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peeters et al. and JP '561, as applied to claim 1 above, and further in view of Sacripante et al. (US 5,348,832 A).

The teaching of Peeters and JP '561 is detailed above.

Neither of these references teach the particular polypyrrole recited in these claims.

As detailed at length in the record of parent 10/350,534 (incorporated by reference herein), Sacripante teaches coating a polyester toner particle with the claimed polypyrrole.

It would have been obvious to one of ordinary skill in the art to modify the process of Peeters in view of JP '561 so as to prepare the toner marking material by coating with the polypyrrole of Sacripante. One of ordinary skill in the art would have

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been motivated to do so by the desire and expectation of successfully providing the toner marking material.

### **(10) Response to Argument**

The Examiner has fully considered the arguments set forth in Appellant's Brief. These arguments are not persuasive.

#### Claims 1-3, 6-9, 16, 17, and 22-29

Appellant argues that there is no motivation to utilize the electrophotographic toner of JP '561 in the ballistic aerosol process of Peeters. The Examiner disagrees. Peeters broadly teaches a toner [3:28-33] and does not limit the invention: neither prescribing nor proscribing any one toner exclusively. A reference is part of the literature of the art, relevant for all it contains, and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art.<sup>2</sup> Further, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure.<sup>3</sup> In considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.<sup>4</sup> Because Peeters is silent with respect to the particular toner composition, one of ordinary skill in the art would have looked to the prior art to find a suitable composition. The selection of a known material based on its suitability for its intended use has been held to support a *prima facie* case of obviousness.<sup>5</sup> Further, Peeters teaches that part of the ballistic aerosol marking

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<sup>2</sup> MPEP 2123(I)

<sup>3</sup> MPEP 2123 (II)

<sup>4</sup> MPEP 2144.01

<sup>5</sup> MPEP 2144.07



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process involves electrically charging the particulate marking material so as to assist with extraction of the marking material particles [14:63-15:24]. As such, a toner material that may be electrically charged, such as the electrophotographic toner taught by JP '561, would be particularly suitable and advantageous to apply by the ballistic aerosol technique of Peeters. Consequently, this argument is not persuasive.

With specific respect to claim 17, Appellant argues that the high polymer of JP '561 does not satisfy the limitation requiring that the polypyrrole has at least about 6 monomer units and no more than about 100 repeat monomer units. The Examiner disagrees. There is no evidence of record establishing the definition of a "high polymer" and that applicant's polypyrrole having no more than about 100 repeat monomer units is exclusive of a "high polymer" so defined. In response to this argument, the Examiner cited the definition of "high polymer" from Alger's *Polymer Science Dictionary*. Alger defines "high polymer" as:

A polymer having a high degree of polymerization (DP) and hence of a high molecular mass. "High" is often interpreted as meaning sufficiently high DP so that the effects of end groups may be ignored. ...Typically this means a polymer with a DP of more than about 100.

Alger defines "degree of polymerization" as:

The number of repeat units (M) in an individual polymer molecule, i.e., the value of  $n$  in the generalized formula of a polymer molecule  $[M]_n$ .

Hence, the ordinary and conventional meaning of the term "high polymer" is inclusive of polymers having "about 100 monomer units." In the case where a claimed range overlaps or lies inside a range disclosed by the prior art, a *prima facie* case of obviousness exists. Similarly, a *prima facie* case of obviousness exists where the

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claimed range and prior art range do not overlap but are close enough that one skilled in the art would have expected them to have the same properties.<sup>6</sup> Consequently, this argument is not persuasive.

#### Claims 10-14

Appellant argues that the cited references fail to teach preparation of the toner by an emulsion aggregation process. The Examiner disagrees. While later, dependent claims recite more specific process steps of the emulsion polymerization process of the instant invention, independent claim 1 requires merely an "emulsion aggregation process." JP '561 clearly teaches polymerization in an "emulsion suspension" and, as such, satisfies this broader limitation. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). With respect to the dependent claims reciting particulars of the emulsion aggregation process, Appellant has not argued that Patel fails to teach the claimed emulsion aggregation process. Rather, Appellant argues that Patel fails to provide motivation to combine Peeters and JP '561 as addressed above. Consequently, this argument is not persuasive.

#### Claims 20 and 21

Appellant has not argued that Sacripante fails to teach the claimed sulfonated polyester. Rather, Appellant argues that Sacripante fails to provide motivation to combine Peeters and JP '561 as addressed above. Consequently, this argument is not persuasive.

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<sup>6</sup> MPEP 2144.05

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

**/William Phillip Fletcher III/**  
Primary Examiner

Conferees:

/Jennifer Michener/

Quality Assurance Specialist, TC1700

/Timothy Meeks/

Supervisory Patent Examiner